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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,003	02/14/2002	Paul F. Baude	57181US002	9203
32692	7590	06/03/2004	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			TRINH, HOA B	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	
			2814	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,003

Applicant(s)

BAUDE ET AL.

Examiner

Vikki H Trinh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 and 34-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 20-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-3, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Tang (5,937,272)

As to claim 20, Tang discloses a deposition substrate 20, a patterned first electrode layer 62 adjacent the substrate; a patterned organic semiconductor layer (col. 4, line 14, col. 7, lines 2, 26) ; and a second patterned electrode layer 72, wherein the patterned layer is defined by repositionable aperture mask 112 (col. 4, line 50). See figure 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 21-22, 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang in view of Sturm et al. (6,087,196).

Tang discloses the invention substantially as claimed. However, Tang does not explicitly teach that the first electrode layer defines a gate electrode and the second electrode layer defines S/D electrodes of the TFT.

Sturm et al. teaches a first electrode layer 62 defines a gate electrode and the second electrode layer 72, 90 defines S/D electrodes of the TFT. See figure 1.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Tang with the first and second electrodes, as taught by Sturm et al., so as to clearly define the source, drain, and gate S/D electrodes in the transistor.

As to claim 22, Sturm et al. teaches that the first electrode 124, 126 defines the S/D electrodes and the second electrode layer 118 defines a gate electrode. See figures 14B.

As to claim 25, Sturm et al. teaches that the organic semiconductor is a polycrystalline organic semiconductor. See column 6, lines 50-68.

As to claim 26, Sturm et al. teaches that the material is pentacene. See column 6, lines 50-65.

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As to claim 27, Sturm et al. that one or more complimentary transistor circuit elements 108, 110, 112. See figures 13C.

As to claim 28, Sturm et al. that the elements include a semiconductor layer 102, 104, 106, having amorphous semiconductor layer. See column 6, lines 40-50.

As to claims 29-31, Sturm et al. that one or more layers 62, 72 includes one or more interconnects. Fig. 1.

As to claim 32, Sturm et al. that a patterned dielectric layer 52, 128 (col. 8, lines 23-25) formed adjacent to the organic layer 123. See figure 1.

As to claim 33, Sturm et al. that the IC is an electronic display. See column 1, lines 21-25.

7. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang (5,937,272).

Tang discloses the invention substantially as claimed. However, Tang does not teach a specific range of gap between the S/D electrodes. Nonetheless, it would have been obvious to one skilled in the art at the time the invention was made to modify the gap between the s/d electrodes Tang with the specific range, as claimed, since it is prima facie obvious of an artisan's experimentation and optimization because applicant has not established any criticality for the specific range.

Note that the specification contains no disclosure of either the critical nature of the claimed dimensions of any unexpected results arising therefrom. Where patentability is aid to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. (In re Woodruff, 919 F.2d 1575, 1578 (Fed. Cir. 1990).)

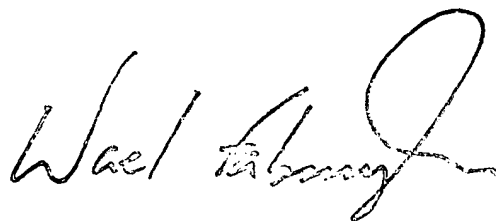
Response to Arguments

7. Applicant's arguments with respect to claims 20-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Vikki Trinh whose telephone number is (703) 308-8238. The Examiner can normally be reached Mon-Tuesday, Thurs-Friday, 7:30 AM - 6:00 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Wael Fahmy, can be reached at (703) 308-4918. General inquiries relating to the status of this application should be directed to the Group receptionist at (703) 308-0858. The fax number is (703) 308-2708.

Vikki Trinh,
Patent Examiner
AU 2814

A handwritten signature in black ink, appearing to read 'Wael Fahmy', is written over a faint, larger signature that is partially obscured.

SUPERVISORY PRIMARY EXAMINER
TECHNOLOGY CENTER 2800